REMARKS

The Final Office Action, mailed January 25, 2006, considered and rejected claims 1-44. Claims 1-44 were rejected under 35 U.S.C. 103(a) as being unpatentable over by Baber et al (U.S. Patent No. 6,546,428) in view of Srinivasan et al (U.S. Patent No. 6,357,042). [1]

By this paper, claims 1, 13, 20 and 31 have been amended to add an explicit recitation of a limitation that was already inherent. In particular, the claims have been amended to clarify that the claimed embodiments utilize scheduling information that is used to determine availability of bandwidth within the data streams that the data is being inserted into. Support for this claim language is found in at least paragraph 11.

Following this paper, claims 1-4 and 6-44 remain pending. Claims 1, 13, 20 and 31 are the only independent claims at issue, with claim 1 being directed to a non-functional method, claim 13 being directed to a similar functional method, and claims 20 and 31 being directed to corresponding computer program products, respectively.

As previously discussed during an in person interview, the present invention is generally directed to embodiments for generating data streams of a specified bandwidth with the use of scheduling information.

The primary reference Baber appears to be directed to embodiments that combine differencing operations and asynchronous message transmissions using message queues. (Col. 2, ll. 61-64). As disclosed, an existing data stream or file is segmented to provide for "the occurrence of repeated transmissions of a segment." Some of the segments (those that have already been sent) are then replaced by associated identifiers as part of a differencing operation. This reduces the volume of the data to be transmitted. (Col. 3, ll. 1-7). The segments and replacement segments (identifiers) are placed in an asynchronous queue and transmitted. (Col. 3, ll. 33-39). If for any reason a transmitted segment identifier or reduced segment is not

[1] Although the prior art status and some of the assertions made with regard to the cited art is not being challenged at this time, inasmuch as it is not necessary following the amendments and remarks made herein, which distinguish the claims from the art of record, Applicants reserve the right to challenge the prior art status and assertions made with regard to the cited art, as well as any official notice, which was taken in the last office action, at any appropriate time in the future, should the need arise, such as, for example in a subsequent amendment or during prosecution of a related application. Accordingly, Applicants' decision not to respond to any particular assertions or rejections in this paper should not be construed as Applicant acquiescing to said assertions or rejections.

recognized by the receiving system, the corresponding segment can be requested through the use of the segment identifier. (Col. 3, ll. 18-24).

It is clear that Baber never contemplates the need or desire to transmit data with any particular timing, as recited in the claims. In particular, Baber does not even require synchronization "between the devices as the message queue provides asynchronous communications..." (Col. 3, ll. 18-21).

In this regard, Baber is contrasted with the present invention that deals with generating a stream of data of a specified bandwidth and that includes scheduling when the data that is put into the stream. Baber, on the other hand, does not even appear to contemplate generating a data stream based on scheduling information whatsoever. This is why Baber uses an asynchronous queue, knowing that the connection between the devices may only be intermittent. (Col. 2, ll. 16-22 and 45-47). The only disclosure in Baber that would appear to deal with scheduling, in this regard, states that the "data stream transmission buffer is sent over the network whenever the buffer is full or the buffer is partially filled and contains the last subject of an object" (col. 9, ll. 25-29), which teaches away from the claimed scheduling.

Accordingly, for at least the foregoing reasons, as well as the others discussed during the interview, it is clear that Baber fails to teach or suggest a method or system for generating a data stream that includes: storing an identifier for at least one data source, wherein the identifier identifies a bandwidth allocation associated with requirements for broadcasting the data, and wherein the identifier is stored with scheduling information that comprises a time when the data should be added to the data stream for broadcast, and wherein the scheduling information is stored only after first checking any previously existing scheduling information to verify that adequate bandwidth is available in the data stream for adding the data to the data stream at the time specified by the scheduling information, and then adding the data to the data stream at the time specified by the scheduling information, as claimed. This is also particularly true when considering that the foregoing embodiments utilize scheduling information that is used to determine availability of bandwidth within the data streams that the data is being inserted into

The Examiner appears to acknowledge that Baber fails to provide any suggestion for the use of the claimed scheduling information. (See page 4 of the OA). To compensate for the failings of Baber, in at least this regard, the Examiner has turned to Srinivasan[2].

Applicants respectfully submit, however, that Srinivasan also fails to compensate for the inadequacies of Baber. In particular, Srinivasan fails to disclose or suggest an embodiment, even in combination with Baber, wherein

> for each identifier, storing scheduling information that comprises a time when the data from the at least one data source should be added to the data stream for broadcast to the one or more client systems, wherein the scheduling information is stored only after first checking any previously existing scheduling information to verify that adequate bandwidth is available in the data stream for adding the data to the data stream at the time specified by the scheduling information, and such that the existing scheduling information is used to determine availability of bandwidth within the data stream," as recited in combination with the other recited claim elements.

In fact, the last office action fails to even assert that Srinivasan teaches what the Examiner has explicitly acknowledged Baber fails to disclose. Instead, the Examiner merely references an embodiment in Srinivasan, called Donut insertion, wherein content providers can sell advertising slots to companies such that the advertisements can be inserted into broadcast video. (See Col. 31, ll. 16-29). This is an alternative embodiment to Srinivasan's other embodiments in which multiple streams of data are merged by the receiving set-top box.

With regard to the Donut insertion, however, Applicants note that the slots of advertising are provided at predetermined intervals and are not scheduled according to an availability of bandwidth within a stream as determined by first looking at preexisting scheduling information, as claimed. This embodiment also fails to contemplate that the scheduling information is utilized to determine availability of bandwidth within the data stream, and such that the scheduling information is only stored after first checking any previously existing scheduling information, as claimed.

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[2] Srinivasan generally deals with methods and embodiments for multiplexing separately-authored metadata for insertion into a video data stream.

In view of the foregoing, it is clear that neither Baber nor Srinivasan use scheduling information in the manner recited and in combination with the other recited claim elements to determine availability in the data stream and for scheduling the transmission of the data in the stream.

Finally, Applicants also note that there would not be a motivation for modifying the teachings of Baber with the teachings of Srinivasan (even if their combination read on the claims, which they don't) because Baber's embodiments utilize an asynchronous queue for transmitting a data stream, with a first in first out mentality. (Baber Col. 4, ll. 8-11). It is noted that the Examiner suggests one would find it obvious to utilize Srinivasan to enhance streams with authored metadata. This assertion, however, fails to correspond with the asserted claim elements that the Examiner has acknowledges Baber fails to teach (e.g., **storing** scheduling information that comprises a time when the data from the at least one data source should be added to the data stream for broadcast to the one or more client systems, wherein the scheduling information is stored **only after** first checking any previously existing scheduling information **to verify that adequate bandwidth** is available in the data stream for adding the data to the data stream at the time specified by the scheduling information, and **such that the existing scheduling information is used to determine availability of bandwidth within the data stream**, as recited in combination with the other recited claim elements).

In view of the foregoing, Applicants respectfully submit that the pending claims are distinguished from the art of record without amending the independent claims and that the rejections of record should be withdrawn.

Although the forgoing remarks have focused primarily on the independent claims, it will be appreciated that, for at least the foregoing reasons, all of the other rejections and assertions of record with respect to the independent and dependent claims are now moot, and therefore need not be addressed individually. However, in this regard, it should be appreciated that Applicants do not necessarily acquiesce to any assertions in the Office Action that are not specifically addressed above, and hereby reserve the right to challenge those assertions at any appropriate time in the future, should the need arise, including any official notice.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 28 day of April, 2006.

Respectfully submitted,

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